

AMERICAN MUSEUM *Novitates*

PUBLISHED BY THE AMERICAN MUSEUM OF NATURAL HISTORY
CENTRAL PARK WEST AT 79TH STREET, NEW YORK, N.Y. 10024
Number 2794, pp. 1–20, figs. 1–74, map 1, tables 1–3 October 9, 1984

A Revision of the African Mygalomorph Spider Genus *Allothele* (Araneae, Dipluridae)

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ABSTRACT

The African diplurid genus *Allothele*, containing species which have been erroneously placed in the American genus *Euagrus*, is redefined to include those diplurids with fully setae-lined spermathecal trunks, a non-terminal male tibia II mating apophysis with stout toothlike apical and subapical spines, and a male metatarsus II mating apophysis with-

out multiple keels. A cladogram, key, diagnoses, descriptions, illustrations, scanning electron micrographs, locality records, and map are provided for the five known species of *Allothele*. *Euagrus regnardi* Benoit is transferred to *Allothele*. One new species, *A. malawi*, is described.

INTRODUCTION

Allothele comprises a distinctive group of ischnotheline diplurid spiders living in southern Africa. My study of this genus began because some authors have lumped *Allothele* species into *Euagrus* (often erroneously spelled *Evagrus*), a related American diplurid genus that I am currently revising. Although the small size of *Allothele* population samples and dearth of habitat data have made it difficult to test hypotheses concerning *Allothele* systematics, this first revision of *Allothele* greatly increases our knowledge and should stimulate and direct the fieldwork that is needed for further hypothesis testing.

Conflicting taxonomic opinions have come from the seven authors who have published taxonomic studies of *Allothele* species. Although the first *Allothele* species to be de-

scribed were placed in *Euagrus* (Pocock, 1902) and *Thelechoris* (Purcell, 1903), Hewitt (1915) suggested that these species belonged in a new genus and Tucker (1920) formalized Hewitt's opinion by establishing *Allothele* to include these species and a new one, *Allothele teretis* Tucker. Although Lersert (1933) concurred with this decision, Benoit (1964) emphatically rejected Tucker's *Allothele*, proclaimed it a synonym of *Euagrus*, and added a new species, *Euagrus regnardi*. Benoit's taxonomy was recently followed, albeit reluctantly, by Raven (1983) in a description of an *Allothele* population from Malawi.

Almost nothing is known about the behavior and ecology of *Allothele*. Habitat data [see the natural history sections for *Allothele*

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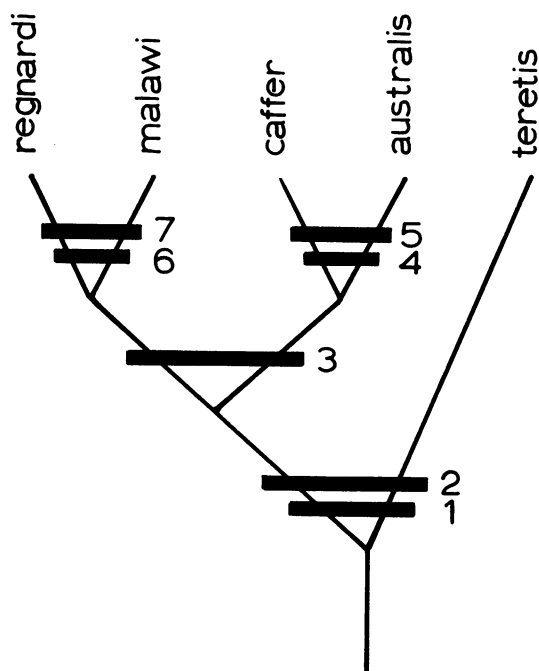


FIG. 1. Cladogram of *Allothele* species. Synapomorphies (represented by bars) are discussed in text.

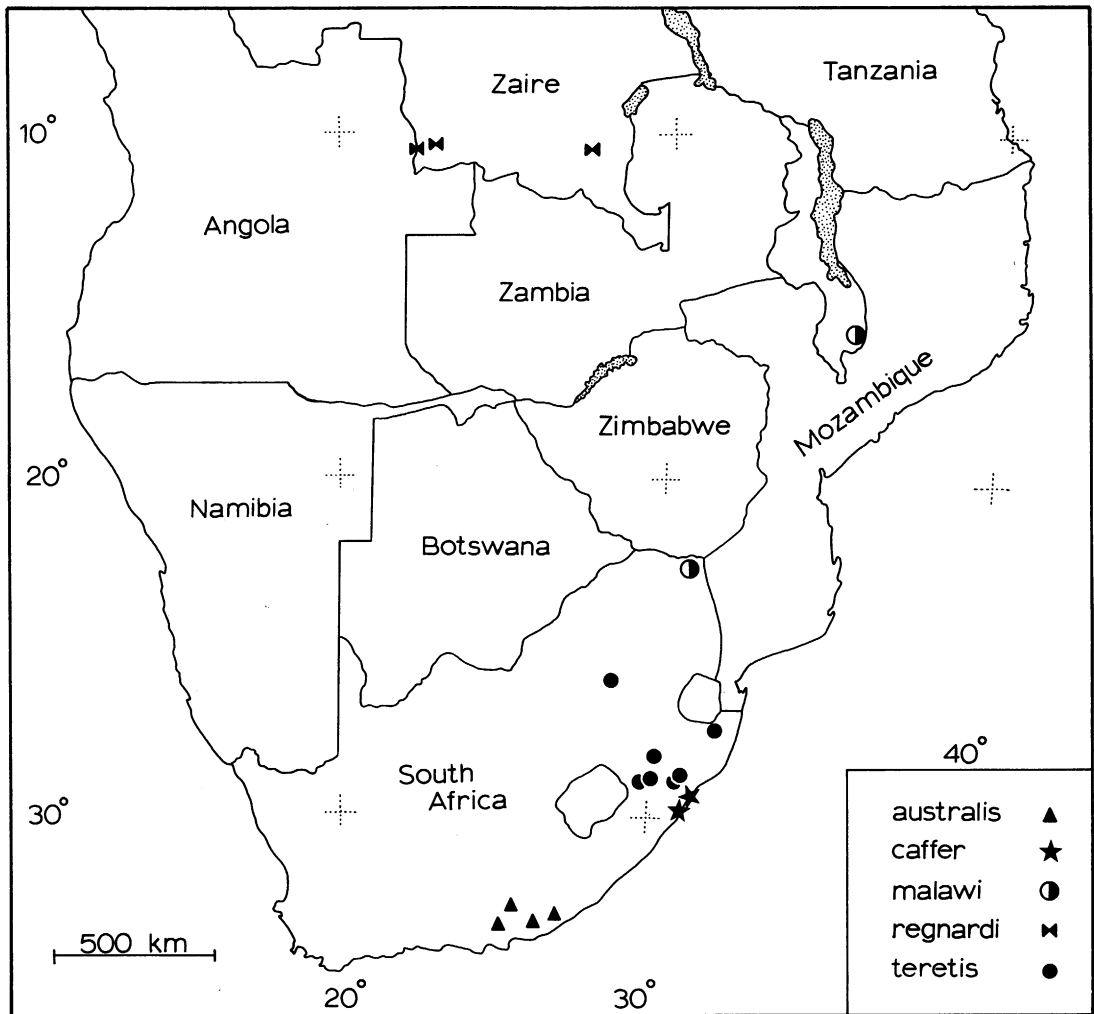
malawi, new species and *Allothele regnardi* (Benoit)] and the placement of collecting localities on vegetation and climate maps of southern Africa indicate that *Allothele* is generally adapted to savanna and forest habitats with dry winter and rainy summer seasons. The collection dates for males are limited to August through February and concentrated from October through January, suggesting that males abandon their webs and search for mates during the summer wet season. From one literature record (Benoit, 1971) and several collecting labels with microhabitat data, it appears that *Allothele* spiders live in sheet and funnel webs that are partly (or perhaps wholly) sheltered in cavities in the ground, under rocks, in rotten logs, in leaf litter, or under tree bark. C. E. Griswold (personal commun.) has recently discovered communal mysmenid spiders living in some of these *Allothele* webs.

RELATIONSHIPS

Raven (1979) grouped *Allothele* together with *Euagrus*, *Phyxioschaema* (an Asian ge-

nus), and *Cethegus* (an Australian genus) to form the tribe Euagrini. Currently Raven's (1984) Euagrini includes four additional genera (*Stenygrocerus*, *Australothele*, *Carrai*, and *Namirea*), all Australian. Although a thorough discussion of the relationships of these genera will be possible only when the revision of *Euagrus* is completed and *Phyxioschaema* spermathecae are described, a preliminary survey of characters in these eight genera suggests that *Allothele*, *Euagrus*, and *Phyxioschaema* form a monophyletic group defined by two synapomorphies: interlocking spinule patches on male femora I and II and non-terminal male tibia II mating apophyses. The palpal ridges found on all *Allothele* males and on the males of several *Euagrus* species, but not present, to my knowledge, on other diplurid males, may constitute a synapomorphy linking *Allothele* and *Euagrus*. If these palpal ridges are shown to be homologous to those found on male pycnothelids, however, they would instead be plesiomorphic. Two probable synapomorphies (which remain tentative until *Phyxioschaema* spermathecae are described) supporting the monophyly of *Allothele* are the fully setae-lined spermathecal trunks and the sclerotized spermathecal bulbs (synapomorphies 1 and 2, fig. 1).

If the interrelationships of *Allothele* species are analyzed using out-group comparison, with *Euagrus* and *Phyxioschaema* as the putative sister groups of *Allothele*, five probable synapomorphies, all non-conflicting, can be identified (synapomorphies 3–7, fig. 1). *Allothele australis* (Purcell), *Allothele caffer* (Pocock), *A. malawi*, and *A. regnardi* form a monophyletic group distinct from *A. teretis* by possessing a much more distal and pro-lateral tibia II mating apophysis (synapomorphy 3; figs. 23, 25, 31, 32, 44) than is found in *A. teretis* (figs. 54, 56, 57), *Euagrus*, and *Phyxioschaema*. *Allothele australis* and *A. caffer* seem to be closely related to each other on the basis of two synapomorphies; the lateral spermathecal bulb is attached to the ventral surface of the spermathecal trunk (synapomorphy 4; figs. 18–20, 27–30) rather than to its lateral surface as in the other three *Allothele* species (figs. 38–43, 51–53, 66–74) and the palpal bulb is relatively broad (see PD(100)/PL in table 1) and tapers abruptly



MAP 1. Southern Africa, showing distribution of *Allothele* species.

to the embolus base (synapomorphy 5; figs. 16, 17, 21, 22) rather than being narrow and tapering gradually into the embolus base as in the other congeners (figs. 35, 36, 47–50, 62–64). *Allothele malawi* and *A. regnardi* similarly form a pair of sister species on the basis of two synapomorphies; the tibia II apophysis is more distal (synapomorphy 6; see IITA(100)/IITL in table 1) than in their congeners and the number of tibia II apophysis spines averages much higher (synapomorphy 7; see IITAS in table 1) than in the other *Allothele* species.

This cladogram is consistent with the vicariance events suggested by the known geo-

graphic distribution patterns of the species (map 1). While *A. teretis*, a distinctively different and putatively old species, may be sympatric with *A. caffer*, *A. caffer* and the other three species appear to be strictly allopatric, with each of the two pairs of putative sister species being composed of geographically nearest neighbors.

ACKNOWLEDGMENTS

The following persons and institutions kindly lent *Allothele* specimens: Ms. C. A. Car of the South African Museum (SAM), Mr. P. Croeser and Dr. C. Griswold of the

Natal Museum (NM), Dr. F. W. Gess of the Albany Museum (AM), Mr. P. Hillyard of the British Museum (Natural History) (BMNH), Dr. R. Jocqué of the Musée Royal de l'Afrique Centrale (MRAC), and Ms. L. Wessels of the Transvaal Museum (TM). I thank Ms. JoAn Hudson of the Clemson University Electron Microscope Facility for her assistance with the scanning electron microscopy and Drs. Norman I. Platnick and Robert J. Raven for reviewing a draft of the manuscript. This study was supported by National Science Foundation Grant DEB-8104682.

METHODS

The measurement and meristic characters used in this study are abbreviated and defined as follows: IITAS, number of spines on the male tibia II apophysis; ITPS, number of spines on the distal half of the prolateral surface of male tibia I (figs. 37, 59); CT, number of cheliceral teeth; CD, number of cheliceral denticles (microteeth); CL, carapace length (fig. 3); CW, carapace width; AMD, transverse diameter of left anterior median eye pupil (light-colored, saucer-shaped area of eye); AMS, minimum distance between pupils of right and left anterior median eyes; OQW, maximum width of ocular quadrangle on line perpendicular to median longitudinal axis of carapace; IFL, ITL, IML, ITarL, lengths of each leg I article in retrolateral view from proximal point of articulation to most distodorsal point (see Coyle, 1971, fig. 71); IITL, length of male tibia II in prolateral view (fig. 25); IITA, distance along IITL from proximal end of tibia to distal edge of the apophysis base (fig. 25); IIML, length of male metatarsus II in prolateral view (fig. 25); IIMA, distance along IIML from proximal end of metatarsus to apex of apophysis (fig. 25); PTL, palpal tibia length in retrolateral view (fig. 16); PL, palpus length in retrolateral view (fig. 16); PD, palpus bulb diameter in retrolateral view (fig. 16); IISPL, length of male femur II spinule patch; IISPW, width of male femur II spinule patch; MSL, length of posterior median spinneret; LSL1, LSL2, LSL3, lengths of each posterior lateral spinneret article (LSL1 = basal article) measured along its midventral line. All carapace and eye measurements were performed with the

lateral borders of the carapace on the horizontal plane. All appendage character states were recorded from the left appendage unless missing, damaged, or not fully regenerated, except for IITAS and ITPS, which were recorded from both right and left appendages.

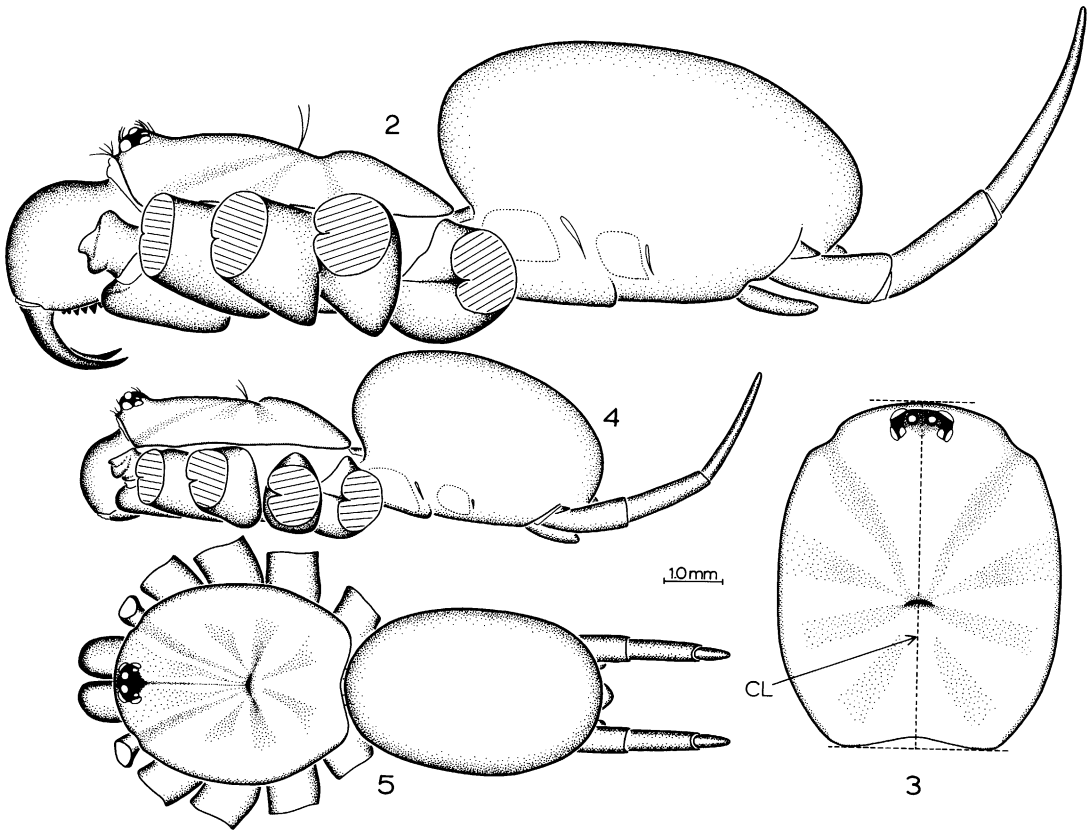
I took measurements with a Wild M-5 stereomicroscope with 20× eyepiece lenses and an eyepiece micrometer scale. CL and CW measurements were accurate to 0.038 mm; AMD, AMS, and OQW measurements were accurate to 0.009 mm; and all other measurements were accurate to 0.018 mm. All measurements are given in millimeters.

Spermathecae were examined by removing with forceps and dissecting needles the portion of the body wall to which they are attached, clearing in 85 percent lactic acid, teasing off overlying non-transparent tissues, placing the preparation dorsal side up in lactic acid under a cover slip on a microscope slide, and viewing through a compound light microscope at 100×. Spermathecae drawings were then made with the aid of a drawing tube.

The scanning electron microscope character descriptions (in the genus description) are based on examination of only one *A. teretis* female and, for certain characters, an *A. malawi* female. When using the species key it is important to remember that any ranges of quantitative character values given are simply ranges for the samples examined in this study. Each species description is a composite of all the adult specimens examined. The sizes of these samples are given in tables 1 and 2. A female was considered to be an adult only if her abdomen contained medium to large eggs or if she had a larger CL than any such reproductively active female in her species sample. The quantitative character values recorded in tables 1–3 are an integral part of each description. Color descriptions are based upon preserved specimens observed under alcohol and illuminated by an incandescent microscope bulb; abdominal dorsum color varies greatly and depends in large part upon the degree to which the abdominal body wall is stretched.

ALLOTHELE TUCKER

Allothele Tucker, 1920, p. 441 (type species, here designated, *Allothele teretis* Tucker).

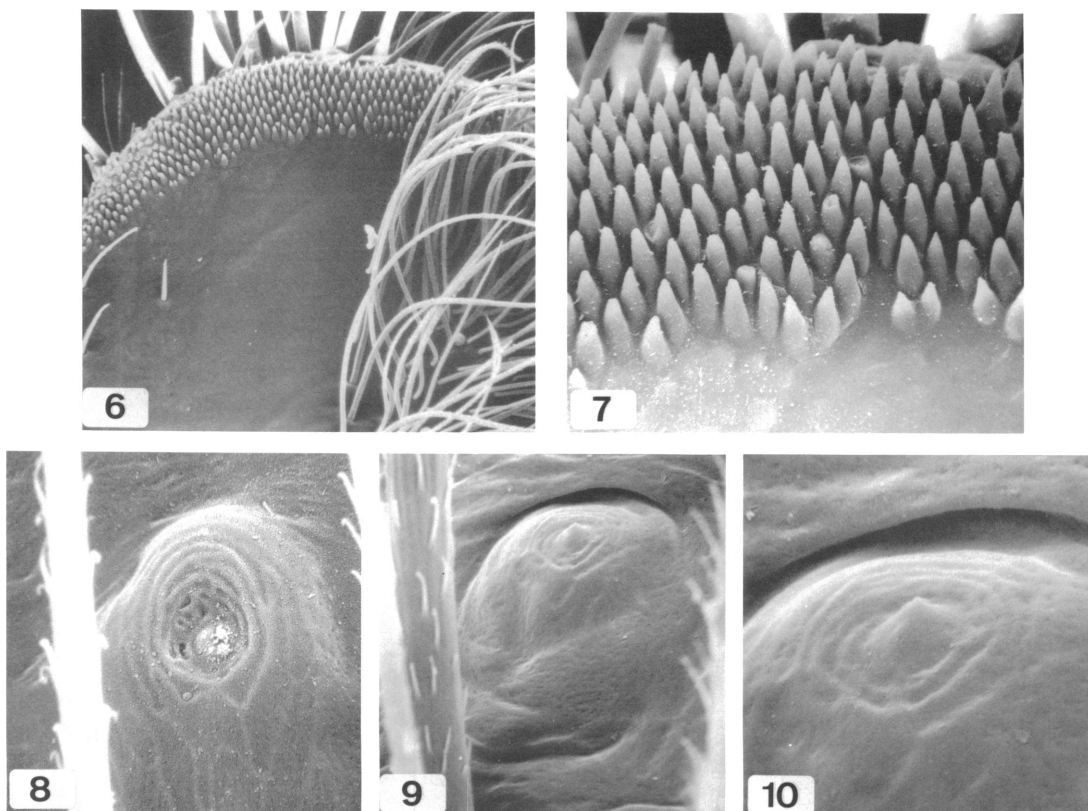


FIGS. 2-5. 2, 3. *Allothele teretis* Tucker, female. 4, 5. *A. malawi*, new species, male. 2, 4. Body, lateral view. 3. Carapace, dorsal view; CL = carapace length. 5. Body, dorsal view.

DIAGNOSIS: *Allothele* males can be distinguished from males of most other diplurid genera by the presence of a well-developed mating apophysis on tibia II (figs. 25, 31, 44, 54, 57). From other diplurid genera which also possess male tibia II apophyses (like *Euagrus*, *Phyxioschaema*, *Australothele*, and *Namirea*), *Allothele* males differ by virtue of the following character states: (1) the tibia II apophysis is attached to the proventrolateral surface and at a marked distance from either the proximal or distal end of the tibia (figs. 25, 31, 44, 54, 57); (2) all spines on the tibia II apophysis are extremely short and stout (figs. 25, 31, 44, 54, 57); (3) the metatarsus II apophysis is proximal and gradually tapers to a single tip (figs. 25, 31, 44, 54, 57); (4) patches of relatively weak spinules are present on the opposing lateral surfaces of femora I and II in the middle of these surfaces and

largely proximal of the midpoint (figs. 60, 61); (5) the tip of the palpal tarsus is not extended much beyond the base of the palpus (figs. 16, 21, 62), and (6) the palpal tarsus is spineless. *Allothele* females possess unusual setae-lined spermathecal trunks (figs. 18, 27, 38, 51, 70) not yet reported for any other diplurid genera, sclerotized spermathecal bulbs, and, unlike *Euagrus* and *Phyxioschaema* females, only zero to four spines on tarsus I.

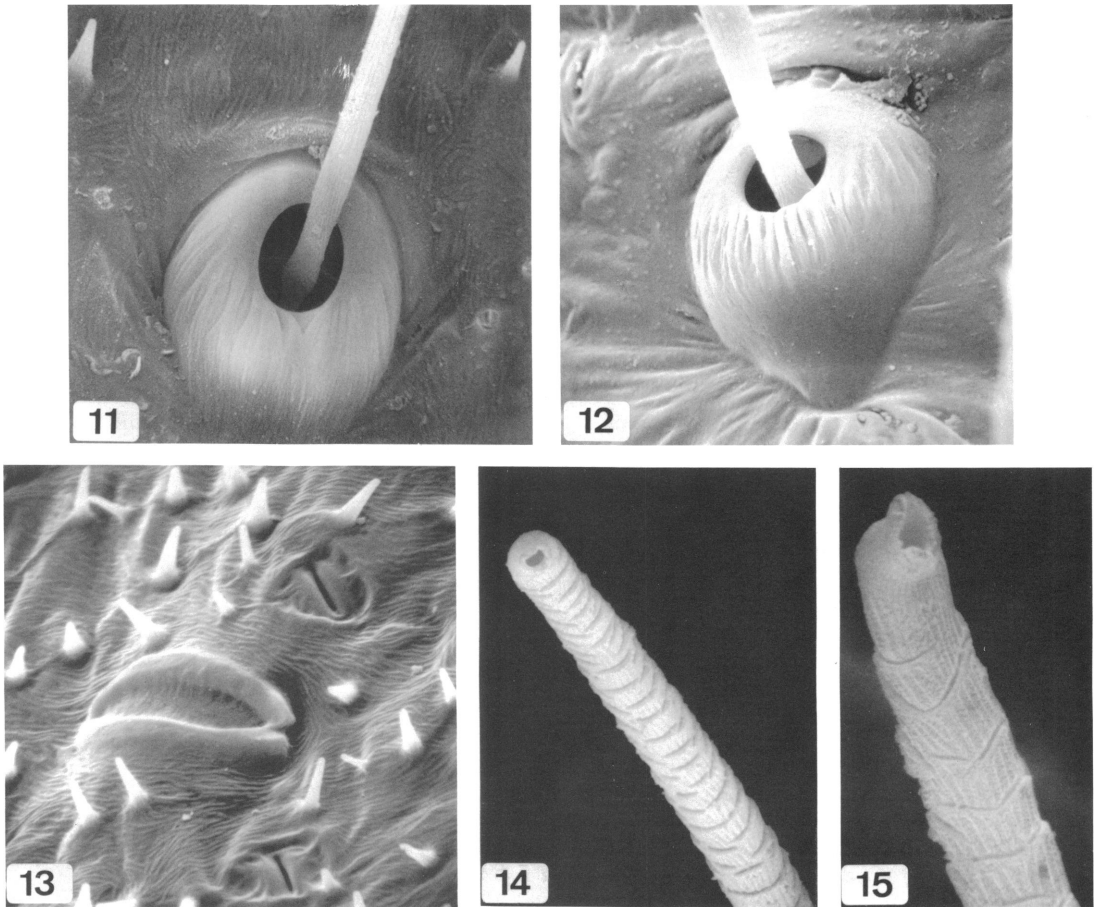
DESCRIPTION: Medium-sized mygalomorph spiders (CL = 3.2-6.4) (figs. 2-5). Fovea a deep transverse groove, usually recurved. Carapace with rather dense covering of long thin recumbent setae; two much larger erect setae side by side in front of fovea and several moderately prominent erect setae usually on and in front of ocular prominence. Pars cephalica elevated little or not at all



FIGS. 6–10. 6, 7. Serrula of female *Allothele teretis* Tucker, 120 \times , 470 \times . 8–10. Tarsal organ of female. 8. *A. teretis* Tucker, 1340 \times . 9, 10. *A. malawi*, new species, 1150 \times , 2870 \times .

above pars thoracica. Eight eyes in two rows forming compact quadrangle wider than long and elevated on median prominence; anterior row slightly procurved, posterior row straight. Sternum longer than wide. Six small, round subequal sigilla on lateral margins of sternum; transverse seta-less area just behind labium formed by two fused labiosternal sigilla. Labium wider than long, strongly inclined from plane of sternum. Labium and maxillae lack cuspules. Serrula a broad band tapering at both ends (figs. 6, 7); serrula teeth sharp and conical. Chelicerae with row of nine to 14 medium to large teeth on promargin of fang furrow and six to 50 denticles grouped along proximal one-third to half of this row on its retrolateral side; most retrolateral and distal of these denticles larger than others. No rastellum. Legs with three tarsal claws;

superior claw; usually one to few teeth on inferior claw. Single row of many teeth on pedipalp claw. Zero to four small spines on female tarsus I; these on prolateral and/or retrolateral aspect of ventral surface. Tarsal organ a mound with concentric ridges surrounding small central protrusion (figs. 8–10). No scopulae or metatarsal preening combs on legs. Two rows of trichobothria on dorsal surface of each tibia; single row dorsally on each metatarsus and tarsus. Trichobothria bases corrugiform (figs. 11, 12). Male tibia I with one to 13 spines on distal half of prolateral surface. Male tibia II with distally directed mating apophysis anchored to its proventrolateral surface, with distal surface of apophysis base being 0.3–0.8 of distance from proximal to distal end of tibia; two to eight very short stout spines on apophysis. Male metatarsus II with small proximal ven-



FIGS. 11–15. 11, 12. Tarsal trichobothrial base of female. 11. *Allothele teretis* Tucker, 1850 \times . 12. *A. malawi*, new species, 1620 \times . 13. Microspines, slit sensillum, and slit openings on posterior lateral spinneret of *A. malawi*, new species, female, 1830 \times . 14, 15. End of spigot of *A. teretis* Tucker, female, 2100 \times , 4470 \times .

tral apophysis gradually tapering to single tip. Opposing lateral surfaces of male femora I and II each with patch of relatively weak spinules positioned medially but largely proximal of midpoint (figs. 60, 61); femur I patch interrupted by muscle attachment band. Male palpal tarsus spineless and tip not extended much beyond base of palpal organ. Palpal bulb simple, pyriform, with elongate ridged embolus. Two fully setae-lined spermathecal trunks, each with one or two at least partly sclerotized, perforate bulbs. Four spinnerets; posterior median pair short, unsegmented, with crescent-shaped hirsute sclerite just anterior to its base; posterior lateral pair longer

than carapace, with terminal article longer than basal or middle article, often quite slender distally. Only one type of spigot on all spinnerets; long slender shaft with broad flat scales with parallel longitudinal ridges (figs. 14, 15); tip constricted, slightly prolonged, flattened on one side so that opening is roughly D-shaped (fig. 14). Spinneret cuticle with microspines especially abundant outside spinning field (fig. 13).

MISPLACED SPECIES: The type specimen of *Euagrus atropurpureus* Purcell (1903) is listed in the accession books of the SAM, but cannot be found and is presumed lost. However, Purcell's description clearly shows that

this possibly juvenile specimen is neither a species of *Euagrus* nor of *Allothele* (it has far too few spines on tarsus I to belong in *Euagrus*, its posterior lateral spinnerets are too short, and the ratio LSL3/LSL1 is too small for it to belong in *Allothele*).

KEY TO ALLOTHELE SPECIES

1. Males 2
Females 6
2. Tibia II apophysis distally slender, tipped with two stout spines, and positioned on the pro-lateral aspect of the ventral surface, proximal of the tibia midpoint (figs. 54–58) (IITA(100)/IITL = 41–51) *teretis*
Tibia II apophysis relatively short, stout, rarely with fewer than three spines, and positioned on the ventral aspect of the prolateral surface clearly distal of the tibia midpoint (figs. 23–25, 31–34, 44–46) (IITA(100)/IITL > 60) 3
3. Basal three-fifths of embolus in retrolateral view is broad and tapers abruptly to become thin and straight in distal two-fifths, being curved only at tip (fig. 21); PTL(100)/PL = 87–95 *caffer*
Embolus in retrolateral view tapers gradually and curves gently for entire length (figs. 16, 35, 47, 49); PTL(100)/PL = 71–79 4
4. Palpal bulb proportionally wide in retrolateral view (fig. 16) (PD(100)/PL = 31); embolus strongly curved near tip in retrolateral view (fig. 16); southern South Africa (map 1) *australis*
Palpal bulb in retrolateral view not especially wide (figs. 35, 47, 49) (PD(100)/PL = 21–25); embolus in same view not strongly curved near tip (figs. 35, 47, 49); northern South Africa or further north (map 1) .. 5
5. Metatarsus II apophysis with apical spine (fig. 31); tibia II apophysis short and truncate (figs. 31, 33, 34) *malawi*
Metatarsus II apophysis without spine (fig. 44); tibia II apophysis apically more drawn out or pointed (figs. 44–46) *regnardi*
6. Single, large, roughly oval spermathecal bulb opens into ventral surface of each trunk at or near tip (figs. 18–20); southern South Africa (map 1) *australis*
Each spermathecal trunk terminates in two distinct bulbs, a median and a lateral bulb (which is sometimes bifurcate) (figs. 27–30, 38–43, 51–53, 66–74); north of southern South Africa (map 1) 7
7. Spermathecal trunks short and quite broad basally; lateral bulb attached to ventral surface

- of base of median bulb and is well sclerotized, irregular, and possesses one or two forward-projecting lobes (figs. 27–30)... *caffer*
Spermathecal trunks not as short and broad; lateral bulb attached more laterally, is not as well sclerotized, and lacks a forward-projecting lobe (figs. 38–43, 51–53, 66–74)... 8
8. Anterior genital lip prolonged posteriorly well past anterior book lungs (fig. 65); spermathecal trunks (except in specimens from Mid-dledrift) bent strongly away from the midline (figs. 66, 67, 70–74) *teretis*
Anterior genital lip prolonged very little or not at all past posterior edge of anterior book lungs (fig. 26); spermathecal trunks not strongly bent away from midline (figs. 38–43, 51–53) 9
 9. Lateral spermathecal bulb relatively small and its stalk rudimentary or not strongly constricted (figs. 38–43); CD = 25–46; CL(100)/CD = 11–23 *malawi*
Lateral spermathecal bulb relatively large and its stalk is well developed and strongly constricted (figs. 51–53); CD = 17–20; CL(100)/CD = 26–30 *regnardi*

Allothele australis (Purcell)

Figures 16–20; Map 1

- Thelechoris australis* Purcell, 1903, p. 106 (female holotype from Dunbrody on the Sundays River near Kirkwood, Cape of Good Hope Province, South Africa, in SAM, no. 8899, examined). Hewitt, 1915, p. 132. Tucker, 1917, p. 120 (in part).
Evagrus caffer var. *australis*: Hewitt, 1919, p. 95, fig. 10.
Allothele caffer: Tucker, 1920, p. 442 (in part).
Allothele australis: Tucker, 1920, p. 442.
Allothele cafer var. *australis*: Bonnet, 1955, p. 231.
Evagrus caffer: Benoit, 1964, p. 419 (in part).

DIAGNOSIS: The proportionally wide palpal bulb (fig. 16) (PD(100)/PL = 31) distinguishes *A. australis* males from all congeneric males except those of *A. caffer*. The gradually tapering sinuous embolus (fig. 16) and the proportionally long palpus (PTL(100)/PL = 79) best distinguish *A. australis* males from *A. caffer* males. Females possess distinctive spermathecae (figs. 18–20); the trunks are relatively straight, are not greatly widened basally, and each trunk opens at or near its distal end into the dorsal surface of a single, usually rounded bulb. Also, the relatively small number of cheliceral denticles (CD = 6–23, CL(100)/CD = 27–103) and the proportion-

TABLE 1
Quantitative Character Values for Adult Males of *Allothele* Species^a

	<i>australis</i> (1)	<i>caffer</i> (3)	<i>malawi</i> (17)	<i>regnardi</i> (3)	<i>teretis</i> (9)
IITAS	3	3-4 (3.4)	2-8 (5.3 ± 1.16)	4-6 (4.8)	2
ITPS	10	4-6 (4.8)	4-13 (7.6 ± 2.34)	8-12 (9.7)	1-3 (2.8 ± 0.68)
CL	4.2	4.2-4.6 (4.36)	3.2-4.2 (3.64 ± 0.28)	3.7-4.8 (4.18)	3.5-5.1 (4.24 ± 0.49)
CW	3.7	3.5-4.1 (3.76)	2.8-3.6 (3.10 ± 0.23)	3.2-4.0 (3.57)	3.1-4.2 (3.59 ± 0.36)
IITL	2.00	2.07-2.22 (2.13)	1.57-2.02 (1.77 ± 0.12)	1.78-2.07 (1.92)	1.78-2.26 (2.02 ± 0.18)
IITA	1.30	1.37-1.52 (1.43)	1.11-1.52 (1.29 ± 0.11)	1.30-1.48 (1.37)	0.74-1.15 (0.95 ± 0.15)
IIML	2.44	2.70-2.92 (2.81)	1.87-2.41 (2.10 ± 0.14)	2.16-2.61 (2.39)	2.26-3.02 (2.65 ± 0.26)
IIMA	0.96	1.04-1.18 (1.11)	0.70-0.96 (0.83 ± 0.07)	0.93-0.96 (0.95)	0.78-1.07 (0.94 ± 0.11)
PTL	1.22	1.22-1.37 (1.31)	0.89-1.04 (0.96 ± 0.05)	1.07-1.33 (1.21)	1.07-1.37 (1.18 ± 0.09)
PL	1.55	1.41-1.48 (1.43)	1.17-1.33 (1.24 ± 0.05)	1.42-1.78 (1.61)	1.59-2.11 (1.85 ± 0.18)
PD	0.48	0.37-0.43 (0.39)	0.26-0.30 (0.28 ± 0.02)	0.33-0.44 (0.38)	0.31-0.41 (0.34 ± 0.03)
IISPL	1.15	0.93-1.11 (1.05)	0.78-1.22 (1.01 ± 0.11)	1.15-1.22 (1.18)	0.67-0.93 (0.77 ± 0.09)
IISPW	0.56	0.44-0.59 (0.54)	0.33-0.59 (0.46 ± 0.07)	0.52-0.63 (0.58)	0.41-0.67 (0.48 ± 0.08)
IITA(100)/IITL	65	66-68 (67.0)	70-76 (72.5 ± 1.84)	69-73 (71.0)	41-51 (46.7 ± 4.03)
IIML(100)/CL	58	65-69 (67.0)	56-60 (57.9 ± 1.09)	55-59 (57.3)	58-69 (62.6 ± 3.91)
PTL(100)/PL	79	87-95 (91.7)	71-79 (76.9 ± 2.01)	75	59-71 (64.0 ± 3.20)
PD(100)/PL	31	26-29 (27.7)	21-25 (22.9 ± 1.03)	23-25 (23.7)	17-21 (18.4 ± 1.51)
PL(100)/CL	37	32-34 (33.0)	30-37 (34.2 ± 1.55)	37-40 (38.3)	40-48 (43.8 ± 2.28)
IISPW(100)/IISPL	48	48-53 (49.7)	41-54 (45.6 ± 3.82)	41-52 (48.3)	52-75 (62.8 ± 8.39)

^a Character abbreviations are defined in the methods section of the text. Range, mean, and standard deviation given. Sample size in parentheses after species name; these are doubled for IITAS and ITPS because both right and left legs are included.

TABLE 2
Quantitative Character Values for Adult Females of *Allothela* Species^a

	<i>australis</i> (4)	<i>caffer</i> (8)	<i>malawi</i> (8)	<i>regnardi</i> (3)	<i>terreitis</i> (17)
CT	10-12 (11.0)	11-13 (11.6 ± 0.8)	10-14 (12.3 ± 1.3)	10-11 (10.3)	9-13 (11.2 ± 1.2)
CD	6-23 (15.5)	26-34 (29.3 ± 3.0)	25-46 (33.3 ± 7.0)	17-20 (18.3)	18-50 (30.1 ± 10.4)
CL	6.2-6.4 (6.29)	4.0-6.4 (5.05 ± 0.73)	4.4-6.1 (5.02 ± 0.55)	4.6-5.5 (5.06)	4.2-6.3 (5.31 ± 0.58)
CW	4.8-5.2 (5.01)	3.4-5.2 (4.16 ± 0.57)	3.6-4.9 (4.07 ± 0.45)	3.9-4.5 (4.20)	3.6-5.5 (4.43 ± 0.53)
AMD	0.14-0.15 (0.15)	0.13-0.17 (0.15 ± 0.01)	0.12-0.18 (0.14 ± 0.02)	0.17	0.12-0.17 (0.14 ± 0.01)
AMS	0.12-0.19 (0.15)	0.09-0.19 (0.12 ± 0.03)	0.11-0.15 (0.13 ± 0.01)	0.11-0.13 (0.12)	0.09-0.19 (0.13 ± 0.03)
OQW	1.05-1.17 (1.10)	0.77-1.05 (0.91 ± 0.09)	0.78-1.03 (0.90 ± 0.09)	0.93-1.17 (1.02)	0.78-1.18 (0.97 ± 0.11)
IFL	3.96-4.14 (4.10)	2.61-4.11 (3.23 ± 0.43)	2.81-3.50 (3.16 ± 0.24)	2.96-3.44 (3.26)	2.74-4.05 (3.37 ± 0.37)
ITL	2.55-2.66 (2.61)	1.63-2.63 (2.03 ± 0.29)	1.85-2.26 (2.04 ± 0.17)	1.85-2.09 (2.00)	1.70-2.52 (2.09 ± 0.22)
IML	2.74-2.81 (2.79)	1.79-2.85 (2.27 ± 0.30)	1.98-2.48 (2.17 ± 0.19)	2.00-2.22 (2.12)	1.85-2.63 (2.31 ± 0.25)
ITarL	1.44	1.00-1.63 (1.26 ± 0.18)	1.11-1.33 (1.23 ± 0.09)	1.17-1.20 (1.18)	1.04-1.44 (1.18 ± 0.30)
MSL	1.59-1.70 (1.65)	1.09-1.59 (1.31 ± 0.15)	1.04-1.48 (1.24 ± 0.17)	1.26-1.37 (1.32)	1.11-1.67 (1.40 ± 0.16)
LSL1	2.22-2.66 (2.48)	1.74-2.55 (1.98 ± 0.28)	1.67-2.52 (1.96 ± 0.30)	1.74-2.04 (1.90)	1.63-2.33 (2.00 ± 0.19)
LSL2	2.22-2.63 (2.40)	1.55-2.04 (1.81 ± 0.20)	1.55-2.59 (1.88 ± 0.35)	1.59-2.04 (1.86)	1.52-2.22 (1.87 ± 0.19)
LSL3	4.26-4.51 (4.39)	2.70-4.11 (3.31 ± 0.54)	1.85-3.77 (2.62 ± 0.73)	2.78-3.40 (3.16)	2.41-4.26 (3.36 ± 0.57)
CL(100)/CD	27-103 (51.8)	15-22 (17.5 ± 2.6)	11-23 (15.7 ± 4.1)	26-30 (27.6)	9-33 (19.7 ± 7.1)
AMD(100)/CL	2.2-2.4 (2.32)	2.5-3.3 (2.96 ± 0.27)	2.3-3.3 (2.77 ± 0.36)	3.0-3.6 (3.32)	2.2-2.9 (2.73 ± 0.17)

^a Character abbreviations are defined in the methods section of the text. Range, mean, and standard deviation given. Sample size in parentheses after species name.

TABLE 3
Quantitative Character Values for Type Specimens of *Allothele* Species

	<i>australis</i> (Holotype ♀)		<i>caffer</i> (Pinned Syntype ♂)	<i>malawi</i> (Holotype ♂)	<i>regnardi</i> (Holotype ♂)	<i>teretis</i> (Syntype ♂)
CT	12	IITAS	4,4	5,5	5,4	2,2
CD	6	ITPS	6,4	8,9	8,9	3,3
CL	6.1	CL	4.2	3.8	4.8	3.9
CW	5.0	CW	3.7	3.2	4.0	3.2
AMD	0.15	IITL	2.07	1.85	2.07	1.89
AMS	0.13	IITA	1.37	1.33	1.48	0.78
OQW	1.06	IIML	2.70	2.15	2.61	2.46
IFL	3.96	IIMA	1.04	0.89	0.96	0.93
ITL	2.55	PTL	1.22	0.93	1.33	1.11
IML	2.74	PL	1.41	1.30	1.78	1.70
ITarL	1.44	PD	0.37	0.30	0.44	0.31
MSL	1.59	IISPL	0.93	1.00	1.22	0.93
LSL1	2.55	IISPW	0.44	0.52	0.63	0.56
LSL2	2.63	—	—	—	—	—
LSL3	4.40	—	—	—	—	—

ally small anterior median eyes (AMD(100)/CL = 2.18–2.40) help distinguish *A. australis* females.

MALES: Table 1. Palpal bulb relatively wide; narrows rather quickly to embolus (figs. 16, 17). Embolus in retrolateral view sinuous (fig. 16); tapers gradually; ridges faint (this may be because specimen is not fully sclerotized). Tibia II apophysis like that of *A. caffer* in shape and position. Metatarsus II apophysis with apical spine; apophysis shape unknown (damaged on both legs). Carapace pale tan; abdominal dorsum light brown.

FEMALES: Tables 2, 3. Spermathecae trunks relatively straight, not greatly widened at base; each trunk opens at or near its distal end into dorsal surface of single, usually rounded, bulb (figs. 18–20). Carapace light orange-brown; abdominal dorsum pale tan to medium brown or purple-brown.

REMARKS: Ever since Hewitt (1919) and Tucker (1920) concluded (apparently independently) that *Thelechoris australis* Purcell was just a variety of *Euagrus caffer* Pocock, authors have uncritically accepted the synonymy. Clearly this synonymy would not have been proposed had it been the practice to examine spermathecae.

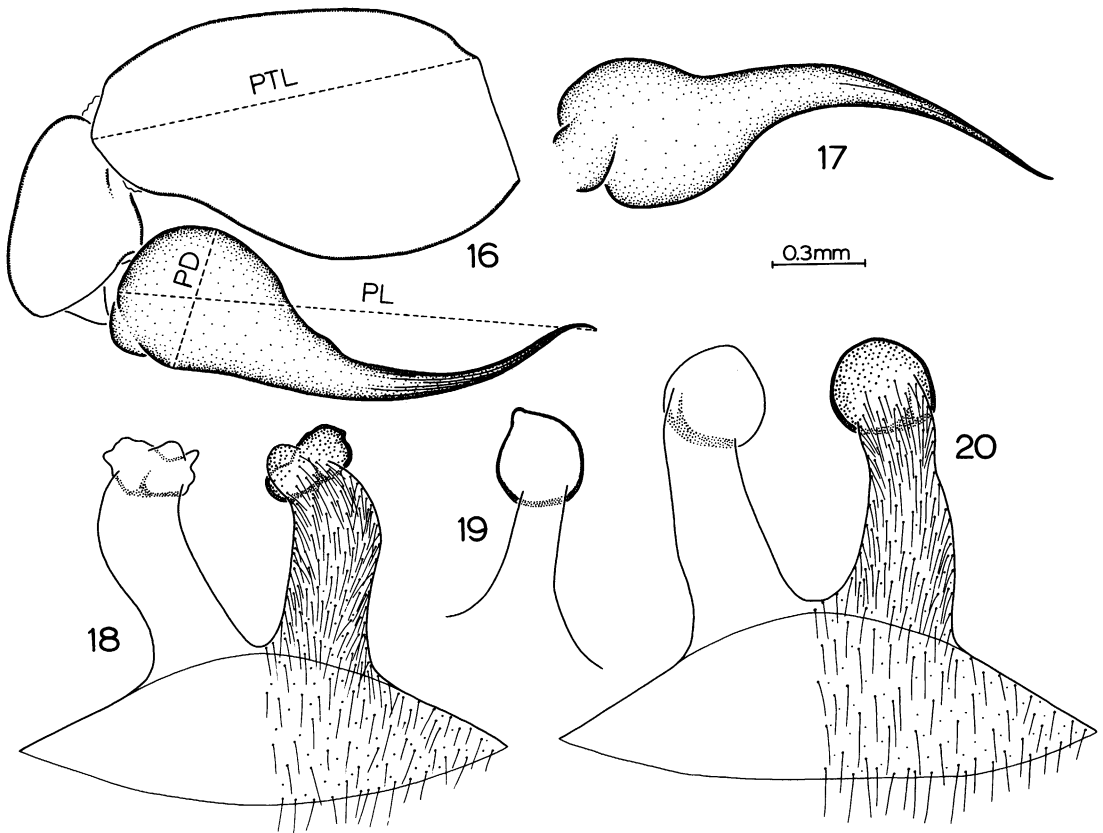
The spermathecal bulbs of the *A. australis* holotype are irregular (fig. 18), unlike the

rounded bulbs of the other *A. australis* females I have examined (figs. 19, 20). However, I suspect that these holotype bulbs are collapsed and predict that this gap in spermathecal form variation will be bridged with a larger sample. My assumption that the male from Grahamstown is conspecific with these *A. australis* females is supported by the close similarity of the spermathecae of the subadult female from Grahamstown to those of Line Drift and Cookhouse adults. Although searches by curators in the Albany Museum and other South African museums have failed to turn up the *Allothele* males collected from Alicedale (midway between Grahamstown and Kirkwood) and presented to the Albany Museum by Mr. Cruden, Hewitt's (1919) description of these males and drawing of the palpus show clearly that they are conspecific with the Grahamstown male I have described.

Although Tucker (1920) reported that *Allothele* females from Cookhouse have distinctively small median eyes, I have examined these specimens and find that these eyes are not significantly smaller than those of the rest of the *A. australis* sample.

DISTRIBUTION: Eastern portion of southern tip of South Africa (map 1).

MATERIAL EXAMINED: SOUTH AFRICA:



FIGS. 16–20. *Allothele australis* (Purcell). 16, 17. Left male palp, Grahamstown, South Africa; PTL = palpal tibia length; PL = palpus length; PD = palpus bulb diameter. 16. Retrolateral view. 17. Prolateral view. 18–20. Spermathecae, dorsal view. 18. Holotype. 19. Line Drift, South Africa, right spermatheca. 20. Cookhouse, South Africa.

Cape of Good Hope: Cookhouse, Oct. 5, 1905 (W. F. Purcell, SAM B2402), 2♀, juvs.; Dunbrody, near Kirkwood, 1901 (J. O'Neil, SAM 8899), 1♀ (holotype); Grahamstown, Oct. 8, 1905 (W. F. Purcell, SAM B2401), 1♂, juvs.; Line Drift, N Pedie (AM 2895), 1♀.

Allothele caffer (Pocock)

Figures 21–30; Map 1

Euagrus caffer Pocock, 1902, p. 318 (two male, two female, and one juvenile syntypes from Durban, Natal, South Africa, in BMNH, examined). Hewitt, 1915, p. 132, fig. 11.

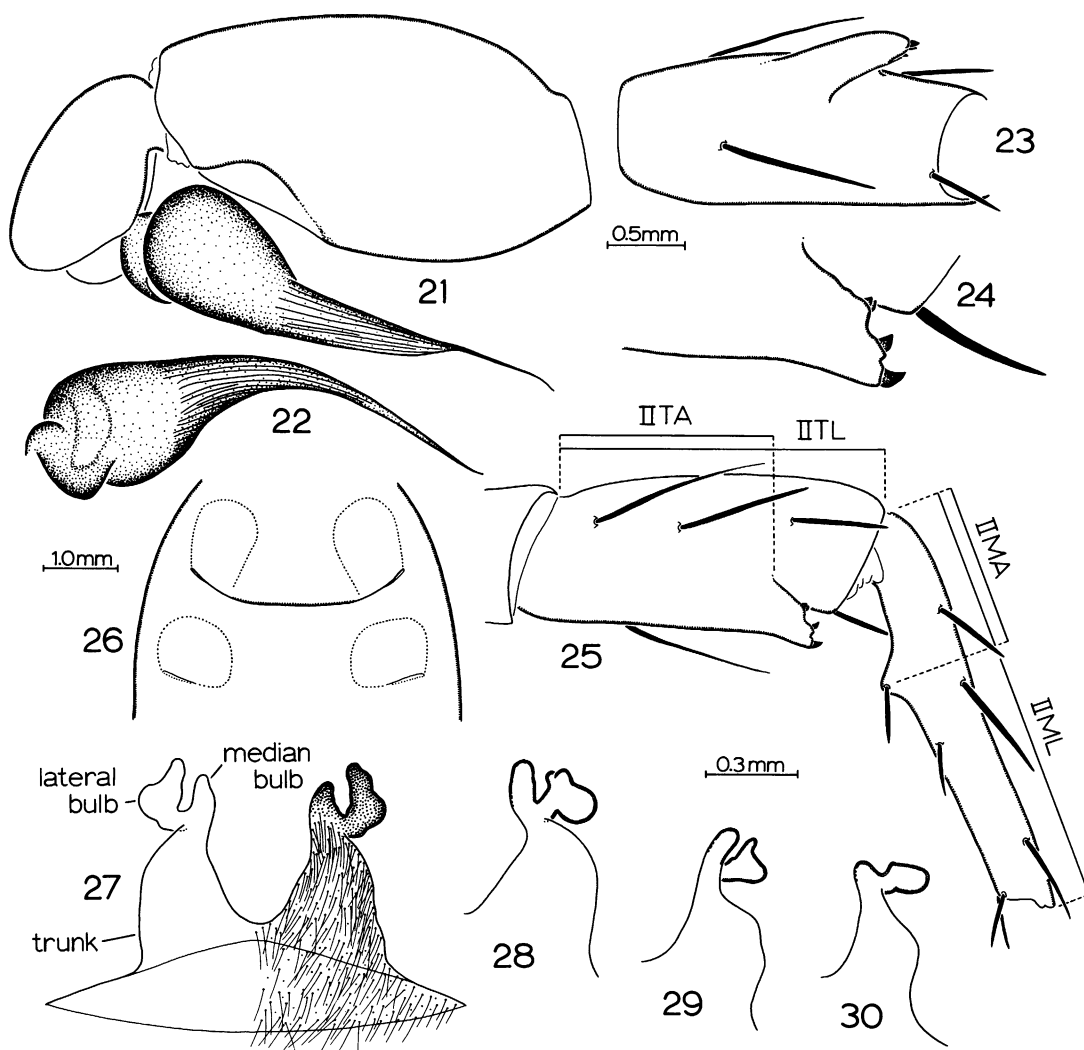
Thelechoris australis (misidentification): Tucker, 1917, p. 120, fig. 9 (Durban specimens only).

Allothele caffer: Tucker, 1920, p. 442 (in part). Bonnet, 1955, p. 231 (in part).

DIAGNOSIS: Males have a distinctively shaped palpus; in retrolateral view the basal

three-fifths of the embolus is broad and then tapers abruptly to a long, thin, straight distal portion which is curved only at its tip (fig. 21). In addition, the relatively long pedipalpal tibia and short palpus (fig. 21) ($PTL(100)/PL = 87-95$) and the proportionally long metatarsus II ($IML(100)/CL = 65-69$) distinguish these males from most other *Allothele* species. Females have distinctively shaped spermathecae (figs. 27–30); the trunks are short and quite broad basally, and the lateral bulb is attached to the ventral surface of the base of the median bulb, is thick-walled, irregular, and with one or two forward-projecting lobes.

MALES: Tables 1, 3. Palpal bulb relatively wide (figs. 21, 22); embolus in retrolateral view broad for basal three-fifths, then tapers abruptly so that it is narrow and straight for rest of its length, being curved only at tip (fig.



FIGS. 21–30. *Allothele caffer* (Pocock). 21–25. Pinned syntype male. 21, 22. Left palp, 0.3 mm scale. 21. Retrolateral view. 22. Prolateral view. 23. Left tibia II, ventral view, 0.5 mm scale. 24. Left tibia II apophysis, prolateral view, 0.3 mm scale. 25. Left tibia and metatarsus II, prolateral view, 0.5 mm scale; IITA = distance to base of tibia II apophysis; IITL = tibia II length; IIMA = distance to metatarsus II apophysis; IIML = metatarsus II length. 26–30. Females. 26. Anterior half of abdomen, ventral view, 1.0 mm scale. 27–30. Spermathecae, dorsal view, 0.3 mm scale. 27. Syntype. 28–30. Right spermatheca. 28. Durban, South Africa. 29. Umhlali, South Africa. 30. South Coast, South Africa.

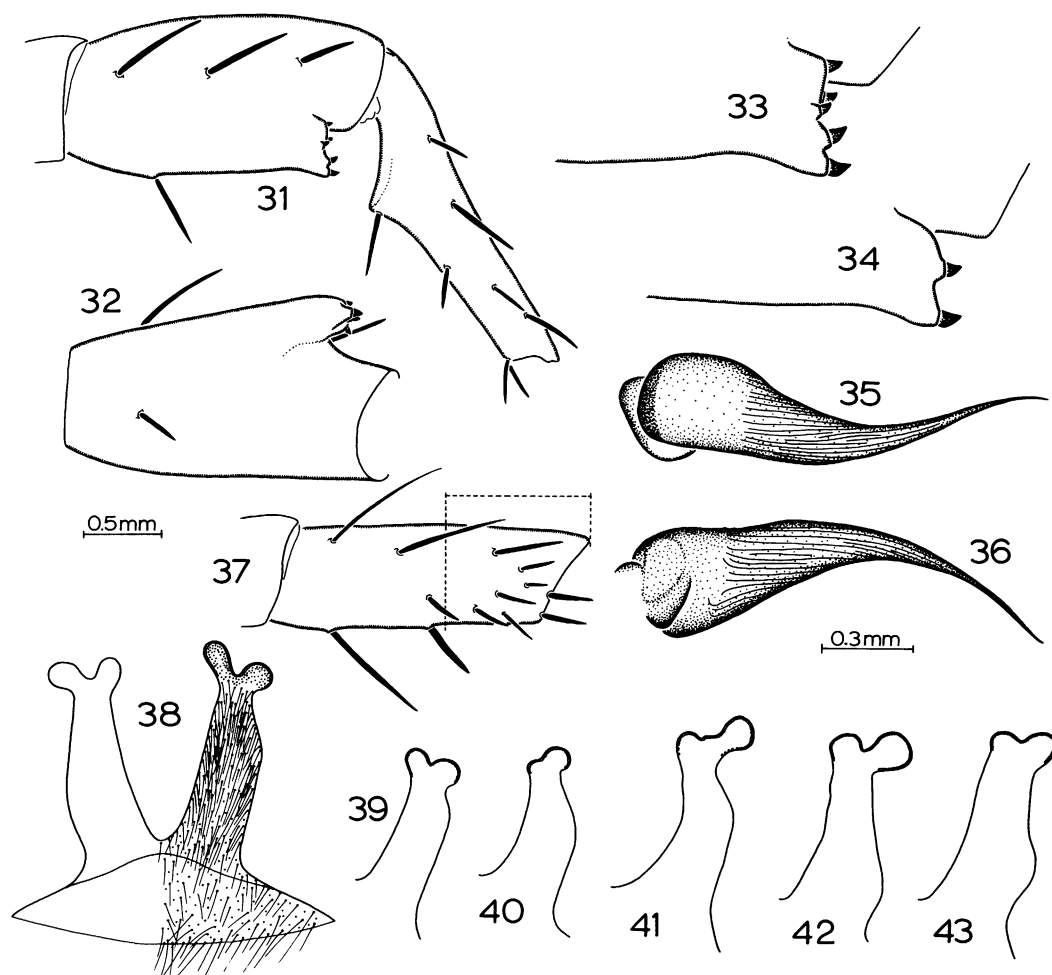
21). Tibia II apophysis relatively stout, positioned on ventral aspect of prolateral surface of tibia, distalmost edge of its base attached well distal of tibia midpoint (figs. 23–25). Metatarsus II apophysis with rounded apex and apical spine (fig. 25). Carapace light orange-brown to dark brown; abdominal dorsum pale tan to dark brown.

FEMALES: Table 2. Spermathecal trunks relatively short; very broad at base (figs. 27–30). Median bulb relatively narrow, evenly

rounded apically, moderately sclerotized. Lateral bulb larger, irregular, with one or two forward-projecting lobes, strongly sclerotized, branching from ventral surface of base of median bulb. Carapace light orange-brown to medium brown; abdominal dorsum pale tan to medium brown.

DISTRIBUTION: Known only from Durban and two nearby localities on the coast of Natal in South Africa (map 1).

MATERIAL EXAMINED: SOUTH AFRICA:



FIGS. 31-43. *Allothele malawi*, new species. 31-37. Males, Mt. Mulanje, Malawi. 31. Left tibia and metatarsus II, prolateral view, 0.5 mm scale. 32. Left tibia II, ventral view, 0.5 mm scale. 33, 34. Left tibia II apophysis, 0.3 mm scale. 35, 36. Left palpus, holotype, 0.3 mm scale. 35. Retrolateral view. 36. Ventral view. 37. Left tibia I, distal half marked, prolateral surface, 0.5 mm scale. 38-43. Spermathecae, dorsal view, 0.3 mm scale. 38-41. Mt. Mulanje, Malawi. 39-43. Right spermatheca. 42, 43. Punda Milia, South Africa.

Natal: Durban (G. P. Staunton, BMNH), 2♂, 2♀, juv. (syntypes), (AM), 1♀, Oct. 1915 (W. Bell Marley, SAM B1948), 1♂, 1♀, Burman Bush (O. Bourguin, NM 8820), 1♀, The Bluff, Nov. 1936 (R. F. Lawrence, NM 1150), 1♀; South Coast, July 1925 (C. Akerman, NM 2018), 1♀; Umhlali, July 1951 (R. F. Lawrence, NM 5616, 5617), 2♀, juvs.

***Allothele malawi*, new species**

Figures 4, 5, 31-43; Map 1

TYPES: Male holotype and five male para-

types collected in pitfall traps at 2000 m elev. on the Lichenya Plateau, Linje River, Mt. Mulanje, Malawi (Nov. 7-23, 1981; R. Jocqué), deposited in MRAC (155.230).

ETYMOLOGY: The specific name is a noun in apposition taken from the type locality.

DIAGNOSIS: Males most closely resemble those of *A. regnardi*, but can be distinguished from them by the presence of a spine on the metatarsal II apophysis (fig. 31) and by the shorter, more truncate, tibia II apophysis (figs. 31-34). Palpal shape (figs. 35, 36) (PTL(100)/PL = 71-79, PD(100)/PL = 21-25) and tibia

II apophysis position (figs. 31, 32) (IITA(100)/IITL = 70–76) best separate *A. malawi* males from males of the remaining *Allothetele* species. Females differ from those of most other *Allothetele* species by virtue of their relatively straight spermathecal trunks with bases that are not especially wide and by the relatively short, broadly connected pair of bulbs at the end of each trunk (figs. 38–43). The lateral spermathecal bulbs of *A. malawi* are proportionally smaller and their stalks absent or less strongly constricted than those of the most similar species, *A. regnardi*.

MALES: Tables 1, 3. Palpal bulb moderately wide (figs. 35, 36); embolus in retrolateral view sinuous, tapering gradually to tip (fig. 35). Tibia II apophysis strong but relatively short, truncate; positioned on ventral aspect of prolateral surface of tibia with distalmost edge of its base attached well distal of tibia midpoint (figs. 31–34). Metatarsus II apophysis relatively thick, with flattened proximoventral face and apical spine (fig. 31). Carapace tan to medium brown; abdominal dorsum light purple to dark purple-brown.

FEMALES: Table 2. Spermathecal trunks relatively straight, with narrow to moderately wide bases (figs. 38–43); the two bulbs at end of each trunk rather weakly sclerotized, rounded, not large, broadly joined and only weakly constricted at bases. Carapace light brown to chestnut-brown; abdominal dorsum purple-brown to dark purple-gray.

VARIATION: All six adult females from the Mt. Mulanje population have proportionally short terminal articles on their lateral spinnerets (LSL3/LSL2 = 1.10–1.47; mean = 1.24 ± 0.13). The two Punda Milia females have proportionally much longer terminal articles with LSL3/LSL2 values (1.83, 1.85) near the mean for the entire sample of 32 *Allothetele* females not from Mt. Mulanje (LSL3/LSL2 = 1.48–2.13; mean = 1.80 ± 0.17). Although this Mt. Mulanje spinneret character state is an unusually distinct quantitative somatic character value for a population sample of *Allothetele* females, I am nevertheless postulating that the Mt. Mulanje and Punda Milia populations are conspecific because of the close similarity in the form of their spermathecae (figs. 38–43).

NATURAL HISTORY: R. Jocqué (personal commun.) reports that at Mt. Mulanje on the Lichenya Plateau *A. malawi* webs were found

in a great variety of “organic crevices” (under the rough bark of living *Widdingtonia whytei* trees, in the leaf rosettes of *Helichrysum*, and in leaf litter) in habitats ranging from dense forest to grassland. Males were collected in pitfall traps placed in habitats ranging from forest to wet grassland with seeping water to very dry grassland.

DISTRIBUTION: Known from two widely separated localities just west of the lowlands of Mozambique in southeastern Africa (map 1).

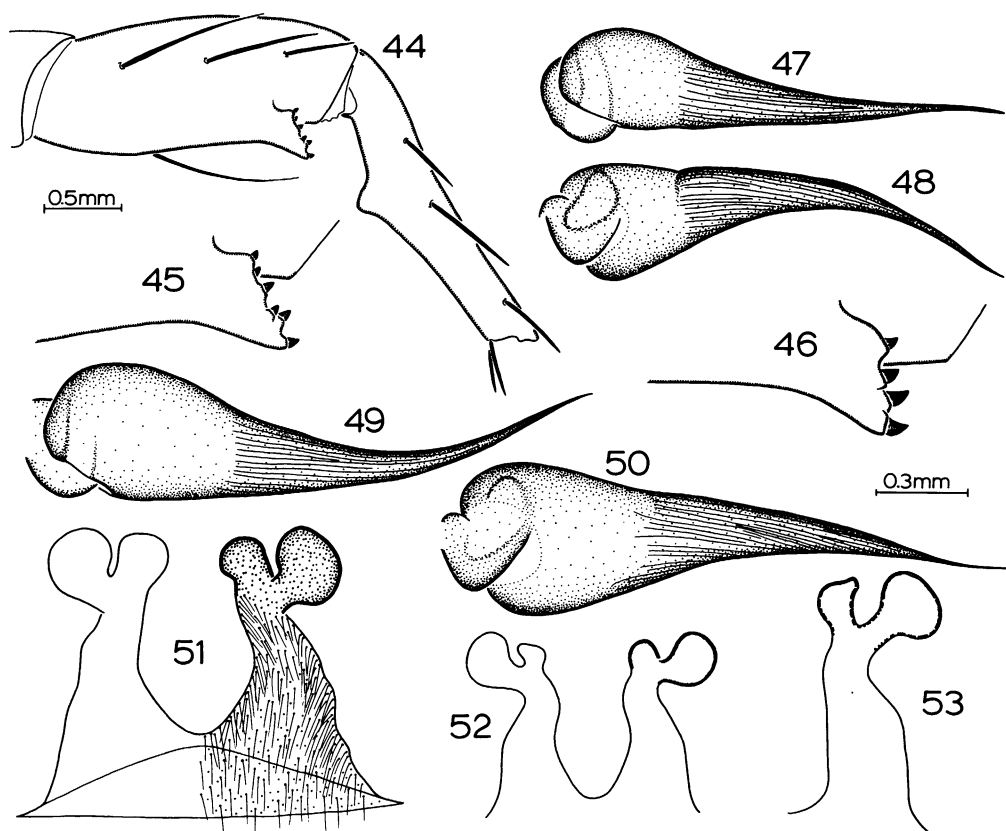
MATERIAL EXAMINED: MALAWI: All collected from Mt. Mulanje, Lichenya Plateau, 2000 m elev. (R. Jocqué, MRAC): Nov. 9–24, 1981, pitfalls in firebreak in grassland, 155.239, 1♂, 155.238, 1♂; Nov. 5–24, 1981, pitfalls, 155.235, 1♂, 1♀; Linje River, Nov. 5–23, 1981, pitfalls in *Cliffortia* vegetation, 155.243, 2♂; Nov. 5–22, 1981, pitfalls in moist grassland by Linje Pools, 155.229, 2♂; Linje Pools, Nov. 9, 1981, 155.246, 1♀; Linje River, Nov. 1981, 155.233, 4♂, juvs.; *Widdingtonia* forest litter, 155.221, juvs.; near CCAP hut, Nov. 9, 1981, 155.227, 1♀; Nov. 5, 1981, under rosettes of *Helichrysum nitidum*, 155.223, juvs.; Tchuchila hut, Nov. 10, 1981, 155.245, juv.; Nov. 7, 1981, *Widdingtonia* evergreen forest, under bark, 155.224, 2♀, juvs.; no specific locality, Nov. 5, 1981, 155.222, 1♂; Nov. 7–23, 1981, pitfalls, 155.230, 6♂ (types). SOUTH AFRICA: *Transvaal*: Kruger National Park, Punda Milia, Nov. 21–23, 1961 (Vari, Rorke, TM 12545), 2♀.

Allothetele regnardi (Benoit),
new combination
Figures 44–53; Map 1

Evagrus regnardi Benoit, 1964, p. 420, fig. 1 (male holotype, 126078, and female allotype, 126082, from Dilolo, Kisenge, Lualaba, Zaire, in MRAC, examined). Benoit, 1971, p. 148.

Euagrus regnardi: Brignoli, 1983, p. 124.

DIAGNOSIS: Males are unique in not having a spine on the metatarsus II apophysis. Other characters which help separate *A. regnardi* males from those of the close relatives, *A. australis*, *A. caffer*, and *A. malawi*, are primarily palpus shape characters (figs. 47–50): the palpus is relatively long (PL(100)/CL = 37–40, PD(100)/PL = 23–25, PTL(100)/PL = 75) and in retrolateral view tapers grad-



FIGS. 44–53. *Allothele regnardi* (Benoit). 44–50. Males. 44. Left tibia and metatarsus II, prolateral view, 0.5 mm scale. 45, 46. Left tibia II apophysis, prolateral view, 0.3 mm scale. 47–50. Left palp. 47, 49. Retrolateral view. 48, 50. Prolateral view. 44, 45, 47, 48. Lukafu, Zaire. 46, 49, 50. Holotype. 51–53. Spermathecae, dorsal view, 0.3 mm scale. 51, 52. Kisenge, Zaire. 53. Allotype, right spermatheca.

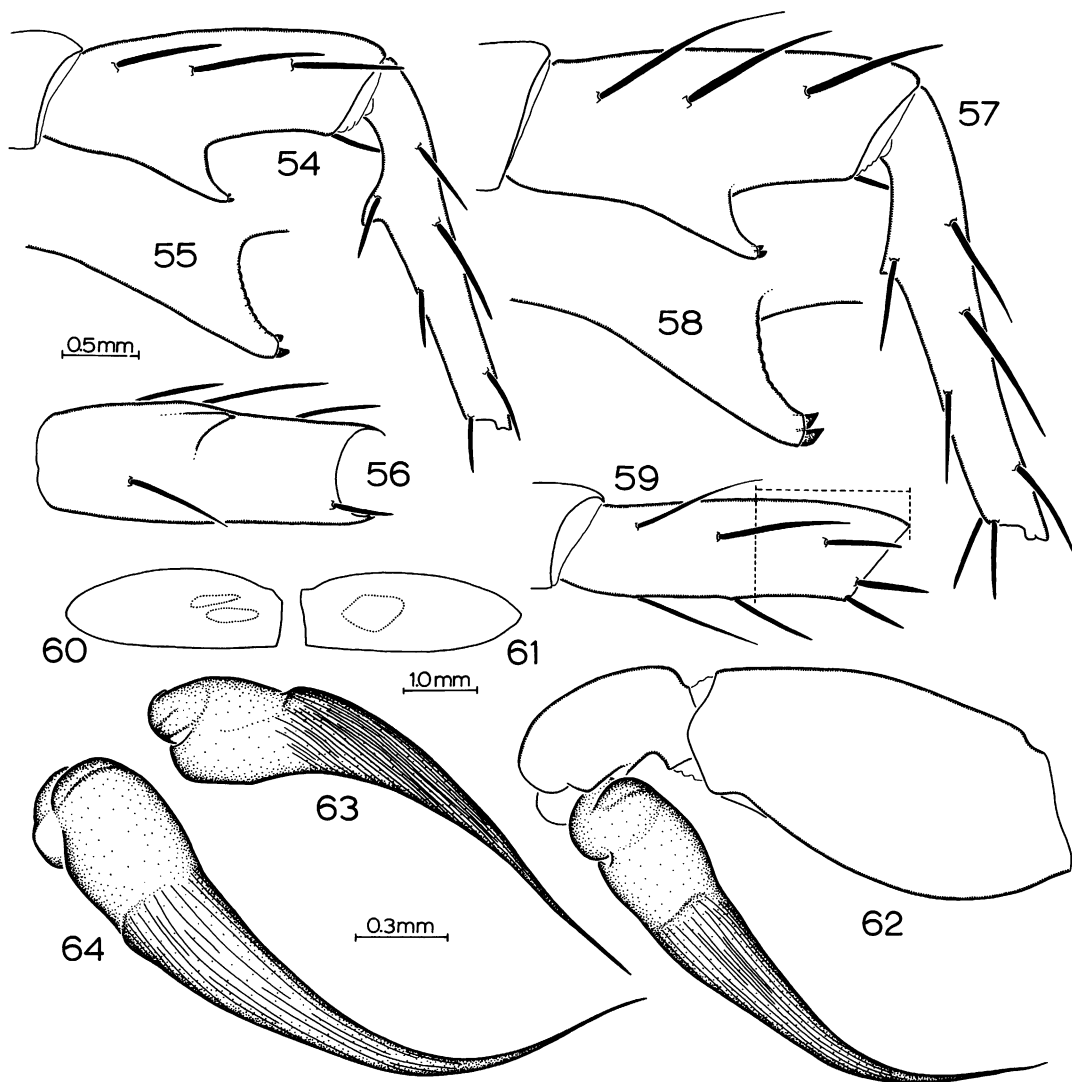
ually to the embolus tip. The three adult females examined have fewer cheliceral denticles ($CD = 17\text{--}20$, $CL(100)/CD = 26\text{--}30$) than the *A. caffer* and *A. malawi* females examined. In addition, the relatively large, rounded, lateral spermathecal bulb with its distinctly constricted base (stalk) attached to the dorsolateral surface of the trunk (figs. 51–53) helps separate *A. regnardi* females from those of all other *Allothele* species.

MALES: Tables 1, 3. Palpus bulb moderately wide, tapering gradually into embolus which tapers gradually to its tip (figs. 47–50). Embolus at least slightly sinuous in retrolateral view. Tibia II apophysis relatively stout but apically drawn out or pointed in lateral view, positioned on ventral aspect of prolateral surface of tibia, with distalmost edge of

its base attached well distal of tibia midpoint (figs. 44–46). Metatarsus II apophysis with relatively rounded apex and no spine (fig. 44). Carapace light brown; abdominal dorsum light purple-brown to dark purple-brown.

FEMALES: Table 2. Spermathecal trunks moderately broad at base, fairly straight (figs. 51–53). Each trunk terminates in pair of weakly sclerotized bulbs; lateral bulb larger, evenly rounded, attached by distinct stalk connecting to dorsolateral surface of base of median bulb. Carapace light brown to chestnut brown; abdominal dorsum medium brown to purple-gray-brown.

REMARKS: I have been unable to examine the Angola *Allothele* specimens identified by Lessert (1933) from Caquindo (=Caquinda?) and by Benoit (1971) from Malange and Ca-



FIGS. 54-64. *Allothele teretis* Tucker, males. 54, 57. Left tibia and metatarsus II, prolateral view, 0.5 mm scale. 55, 58. Left tibia II apophysis, prolateral view, 0.3 mm scale. 56. Left tibia II, ventral view, 0.5 mm scale. 59. Left tibia I, distal half marked, prolateral view, 0.5 mm scale. 60, 61. Left femurs I and II showing position of spinule patches, 1.0 mm scale. 60. Femur I, retrolateral view. 61. Femur II, prolateral view. 54-56, 59-61. Syntype. 57, 58. Weenan, South Africa. 62-64. Left palp, 0.3 mm scale. 62, 63. Holotype. 62. Retrolateral view. 63. Ventral view. 64. Weenan, retrolateral view.

mutongola, but their geographic distribution suggests that they may be *A. regnardi* specimens.

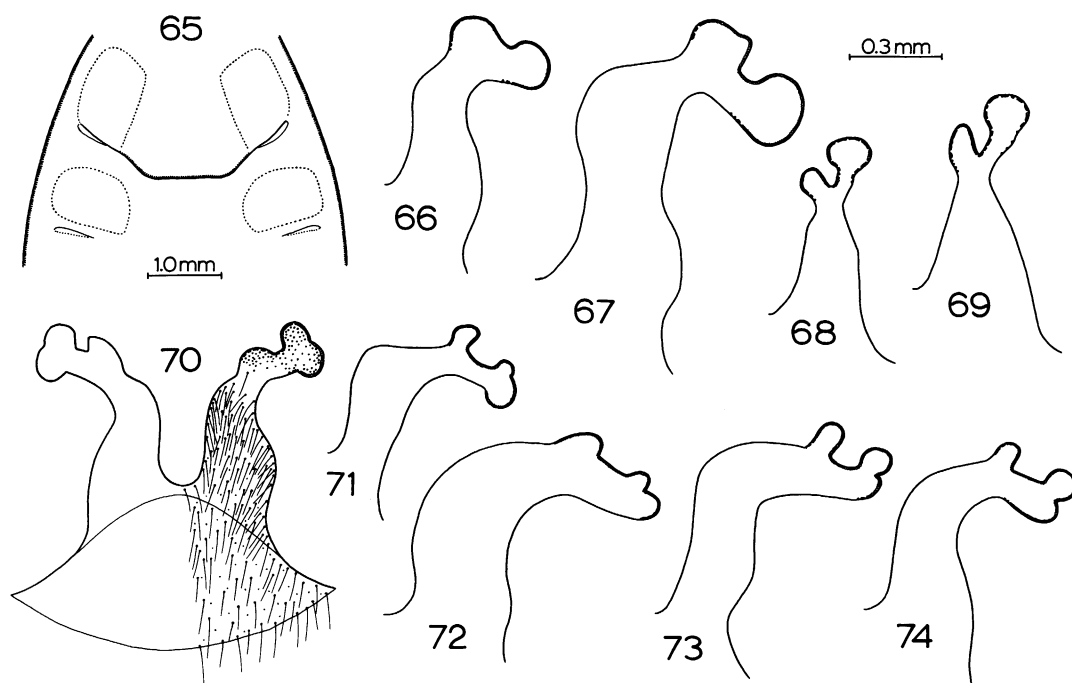
DISTRIBUTION: Southern Zaire and possibly westward to western Angola (map 1).

MATERIAL EXAMINED: ZAIRE: Lualaba, Kisenge, Dilolo, Sept. 1963 (A. Regnard, MRAC), 1♂ (holotype, 126078), 1♀ (allotype, 126082); Katanga, Kisenge, Dec. 1964 (A.

Regnard, MRAC 127542), 1♂, 1♀, juvs.; Katanga, Kisenge, 1965 (A. Regnard, MRAC 127992), 1♀, juvs.; Katanga, Lukafu, Dec. 6-22, 1930 (G. F. DeWitte, MRAC 5177), 1♂.

Allothele teretis Tucker
Figures 2, 3, 54-74; Map 1

Allothele teretis Tucker, 1920, p. 441, plate 28, fig. 1A-C (one male, two female, and two juvenile



FIGS. 65–74. *Allothele teretis* Tucker, females. 65. Anterior half of abdomen, ventral view, 1.0 mm scale. 66–74. Spermathecae, dorsal view, 0.3 mm scale. 66–69, 71–74. Right spermatheca only. 66. Estcourt, South Africa. 67. Weenan, South Africa. 68, 69. Middledrift (Tugela River), South Africa. 70. Syntype. 71. Spionkop, South Africa. 72, 73. Mpofana, South Africa. 74. Kranskop, South Africa.

syntypes from Mfongosi, near Ubombo, Zululand, Natal, South Africa, in SAM, no. B4021, examined). Bonnet, 1955, p. 231.
Evagrus teretis: Benoit, 1964, p. 421.

DIAGNOSIS: Males are easily distinguished from those of other *Allothele* species by their distally slender tibia II apophysis (figs. 54–58) positioned on the prolateral aspect of the ventral surface about midway along the tibia ($IITA(100)/IITL = 41–51$), and by possessing only two apophysis spines. In addition, the small number of spines on the distal half of the prolateral surface of tibia I ($ITPS = 1–3$) (fig. 59) and the proportionally long palpus ($PTL(100)/PL = 59–71$) are distinctive. In *A. teretis* females the anterior genital lip extends posteriorly past the genital groove more than in other *Allothele* species (fig. 65). With the exception of the specimens from Middledrift, *A. teretis* females have distinctive spermathecal trunks that distally are bent strongly away from the midline (figs. 66–74). Also, the dou-

ble nature of the lateral bulb seen in many specimens (figs. 70–74) has not been found in other *Allothele* species.

MALES: Tables 1, 3. Palpus with relatively narrow bulb and very long, curved, gradually tapering embolus with prominent ridges (figs. 62–64). Tibia II apophysis distally slender (figs. 54–58); positioned on prolateral aspect of ventral surface of tibia with distalmost edge of its base attached at or just proximal of tibia midpoint; two stout toothlike spines on apophysis apex. Metatarsus II apophysis thin, usually rather sharply pointed, with spine attached non-apically near its base (figs. 54, 57). Spinules in femur I and II spinule patches weaker, sparser than in other *Allothele* species. Carapace tan to orange-brown or medium brown; abdominal dorsum tan to dark purple-brown.

FEMALES: Table 2. Spermathecal trunks relatively long, usually strongly bent laterally at their midpoints or more distally (figs. 66–74); bases vary from rather narrow to quite broad.

Two weakly sclerotized bulbs at end of each trunk vary greatly in shape (figs. 66–74). Anterior genital lip strongly extended posteriorly over genital groove (fig. 65). Carapace light to medium amber brown; abdominal dorsum ranges from very light brown to medium red-brown or purple-brown to dark gray-brown.

VARIATION: Females exhibit considerable variation in spermathecal form. Lateral bulb shape varies from evenly rounded (Weenan, Estcourt, Middledrift; figs. 66–69) to slightly bifurcate (Mfongosi, Spionkop; figs. 70, 71) to strongly bifurcate (Mpofana, Kranz kop; figs. 72–74). The spermathecae of the Middledrift specimens are quite different from those of all other *A. teretis* samples in having unbent trunks (figs. 68, 69); also the stalks of their lateral bulbs are narrower than in most other specimens. Since the single male specimen from Middledrift differs from the rest of the *A. teretis* male samples in only one character [its palpus is proportionally shorter (PTL(100)/PL = 71) than in the other eight *A. teretis* males examined (PTL(100)/PL = 59–65)], it seems doubtful that this Middledrift population is reproductively isolated from the other *A. teretis* populations. However, this possibility and the possibility that hybridization has occurred between *A. teretis* and *A. caffer* at Middledrift need to be examined.

DISTRIBUTION: Natal and southern Transvaal in South Africa (map 1).

MATERIAL EXAMINED: SOUTH AFRICA: *Natal:* Estcourt, Aug. 1941 (Lawrence and Rump, NM 3364), 1♂, 2♀, juvs.; 100 km. SE Estcourt, at base of Griffins Hill, in abandoned ant hill on thick sheet web, March 27, 1983 (R. Smart, NM), 1♀; Kranz kop, Nov. 1946 (W. G. Rump, NM 3334), 1♂, 3♀; Middledrift, Tugela River, Oct. 1940 (R. F. Lawrence, NM 3296), 1♂, 3♀; Mpofana, near Dundee, Jan. 1939 (R. F. Lawrence, NM 2461), 1♂, 4♀, juvs.; Weenan, Aug. 1941 (Lawrence and Rump, NM 3358), 2♀, juvs., Nov. 1941 (H. P. Thomasset, NM 3380), 3♂, 6♀, juvs.; Dec. 1941 (H. P. Thomasset, NM 3885), 1♂, 1♀, juvs., Jan. 1942 (Thomasset and Brayshaw, NM 3397), 1♂, 5♀; Zululand, Mfongosi, near Ubombo, Feb. 1918 (W. E. Jones, SAM B4021), 1♂, 2♀, juvs. (syntypes). *Transvaal:* Spionkop, Jan. 7, 1979 (A. LeRoy, MRAC 154.463), 1♀.

LITERATURE CITED

- Benoit, P. L. G.
1964. Dipluridae de l'Afrique Centrale. I. (Araneae-Orthognatha) Genres *Evagrus* Ausserer et *Thelechoris* Karsch. Rev. Zool. Bot. Africaine, vol. 70, pp. 417–426, fig. 1.
1971. Notules arachnologiques africaines I. *Ibid.*, vol. 83, pp. 147–158, figs. 1–7.
- Bonnet, Pierre
1955. Bibliographia araneorum. Toulouse, vol. 2, pt. 1, pp. 1–918.
- Brignoli, Paolo M.
1983. A catalogue of the Araneae described between 1940 and 1981. Manchester, 755 pp.
- Coyle, F. A.
1971. Systematics and natural history of the mygalomorph spider genus *Antrodiaetus* and related genera (Araneae: Antrodiaetidae). Bul. Mus. Comp. Zool., vol. 141, pp. 269–402, figs. 1–330.
- Hewitt, John
1915. Notes on several four-lunged spiders in the collection of the Durban Museum with descriptions of two new forms. Ann. Durban Mus., vol. 1, pp. 125–133, figs. 10, 11.
1919. Descriptions of new South African Araneae and Solifugae. Ann. Transvaal Mus., vol. 6, pp. 63–111, figs. 1–13, pls. I–IV.
- Lessert, R. de
1933. Araignées d'Angola. Rev. Suisse Zool., vol. 40, pp. 85–159, figs. 1–73.
- Pocock, R. I.
1902. Some new African spiders. Ann. Mag. Nat. Hist., vol. 10, pp. 315–330.
- Purcell, W. F.
1903. New South African spiders of the families Migidae, Ctenizidae, Barychelidae, Dipluridae and Lycosidae. Ann. South African Mus., vol. 3, pp. 69–142, figs. 1–4, pl. VIII.
- Raven, Robert J.
1979. Systematics of the mygalomorph spider genus *Masteria* (Masteriinae: Dipluridae: Arachnida). Australian Jour. Zool., vol. 27, pp. 623–636, figs. 1–29.
1983. Contributions to the knowledge of the mountain fauna of Malawi (Mission R. Jocqué). III. Dipluridae. Rev. Zool. Africaine, vol. 97, pp. 345–352, figs. 1–11, pl. 1.
1984. Systematics of the Australian curtain-web spiders (Ischnothelinae: Dipluridae: Chelicerata). Australian Jour. Zool.,

- Suppl. Ser., no. 93, pp. 1-102, figs. 1-224.
- Tucker, R. W. E.
1917. On some South African Aviculariidae (Arachnida). Families Migidae, Ctenizidae, Diplothelae, and Dipluridae. *Ann. South African Mus.*, vol. 17, pp. 79-138, figs. 1-13, pl. IX.
1920. Contributions to the South African arachnid fauna. II. On some new South African spiders of the families Barychelidae, Dipluridae, Eresidae, Zodariidae, Heracliidae, Uroctidae, Clubionidae. *Ibid.*, vol. 17, pp. 439-488, pls. XXVIII-XXIX.